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EXAMINER	
AILES, BENJAMIN A	

ART UNIT	PAPER NUMBER
2142	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/899,539	EBBO ET AL.	
	Examiner	Art Unit	
	BENJAMIN A. AILES	2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 December 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date. _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to correspondence filed 30 December 2007.

2. Claims 14-40 remain pending. Claims 1-13 have been canceled.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 14-18, 27, 28, and 30-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tiemann et al. (US 7,171,443 B2), hereinafter referred to as Tiemann, in view of Tso et al. (US 6,892,226 B1), hereinafter referred to as Tso.

5. Regarding claim 14, Tiemann teaches a machine-readable medium having instructions recorded thereon, such that when the instructions are read and executed by a processor in a first computing system connected to a network, the first computing system performs a method comprising: receiving, at the first computing system, a request for a web page from a second computing system, the request web page having content (col. 2, ll. 26-28), creating on the first computing system a page object having references to component objects in response to the received request for information, the page object being created based on a page file, each component object of the page object representing a user control within the page file (col. 6, ll. 1-10; use of a template). Tiemann teaches the identification of data objects ("determining whether each object referenced by the page object corresponds to a user control; determining whether each

user control supports output caching; determining whether the object referenced by the page object is cached if the object corresponds to a user control that supports output caching") and retrieving the output data of the object referenced by the page object and retrieving executable code for objects (col. 6, ll. 1-10, Tiemann teaches the identification of dynamic and static portions; col. 7, ll. 9-15, use of JavaScript) wherein certain objects are identified as cached objects (col. 6, ll. 6-10). Tiemann teaches further the inserting any retrieved output data and any created objects as components into a hierarchical tree data model at the server computing system (col. 6, ll. 1-37, use of template file and example template file), processing the components of the hierarchical tree data model at the server computing system to create a renderable page object (col. 7, ll. 4-11, after portions of the template have been identified the HTML file is generated); and sending the renderable page object from the server computing system to the client computing system (col. 2, ll. 32-37). Tiemann teaches the use of a cache that is locally accessible by a user (col. 4, ll. 25-27) however does not teach of a cache that is located at the server. However, in related art, Tso teaches similarly to Tiemann the request by a client being sent to a server for information (col. 3, ll. 14-19) and Tso teaches further the utilization of retrieving content located at the server and storing and retrieving the content in and from a server-side cache memory (col. 4, line 65 – col. 5, line 11). One of ordinary skill in the art at the time of the applicants' invention would have recognized the use of a server side cache memory and therefore would have found it obvious in combination with Tiemann to utilize a cache memory as taught by Tso. One of ordinary skill in the art would have been motivated to utilize a server-side cache memory as

taught by Tso wherein Tso teaches that it is advantageous to utilize a cache memory when needing to retrieve content for a user and have versions of content for later use without the need to re-retrieve content from a network source (Tso, col. 5, ll. 8-11).

6. Regarding claim 15, Tiemann and Tso teach wherein: the user control including an output caching directive, wherein caching the component object in the output cache comprises caching the component object according to the output caching directive (Tso, col. 6, ll. 14-16; Tiemann, col. 6, ll. 39-44, use of a CACHE tag).

7. Regarding claim 16, Tiemann and Tso teach the method wherein the contents of the renderable page comprises an HTML specification for a web page (Tiemann, col. 7, ll. 4-9).

8. Regarding claim 17, Tiemann and Tso teach the method wherein: the step of processing the created objects comprises processing each one of the components individually (Tiemann, col. 6, ll. 51-57).

9. Regarding claim 18, Tiemann and Tso teach the method further comprising:

creating the hierarchical tree data model including each of the components and a hierarchical relationship among the components, the data model being used during the step of processing the page to facilitate processing each of the components (Tiemann, col. 6, ll. 1-37, use of template file and example template file).

10. Regarding claim 27, Tiemann teaches a method for providing a response to a request for information from a client computing system comprising receiving, at the server computing system, a request for information from the client computing system (col. 2, ll. 26-28), creating a page object having references to objects (col. 6, ll. 1-10;

use of a template). Tiemann teaches the identification of data objects ("determining whether each object referenced by the page object corresponds to a user control; determining whether each user control supports output caching; determining whether the object referenced by the page object is cached if the object corresponds to a user control that supports output caching") and retrieving the output data of the object referenced by the page object and retrieving executable code for objects (col. 6, ll. 1-10, Tiemann teaches the identification of dynamic and static portions; col. 7, ll. 9-15, use of JavaScript) wherein certain objects are identified as cached objects (col. 6, ll. 6-10). Tiemann teaches further the inserting any retrieved output data and any created objects as components into a hierarchical tree data model at the server computing system (col. 6, ll. 1-37, use of template file and example template file), processing the components of the hierarchical tree data model at the server computing system to create a renderable page object (col. 7, ll. 4-11, after portions of the template have been identified the HTML file is generated); and sending the renderable page object from the server computing system to the client computing system (col. 2, ll. 32-37). Tiemann teaches the use of a cache that is locally accessible by a user (col. 4, ll. 25-27) however does not teach of a cache that is located at the server. However, in related art, Tso teaches similarly to Tiemann the request by a client being sent to a server for information (col. 3, ll. 14-19) and Tso teaches further the utilization of retrieving content located at the server and storing and retrieving the content in and from a server-side cache memory (col. 4, line 65 – col. 5, line 11). One of ordinary skill in the art at the time of the applicants' invention would have recognized the use of a server side cache memory and therefore

would have found it obvious in combination with Tiemann to utilize a cache memory as taught by Tso. One of ordinary skill in the art would have been motivated to utilize a server-side cache memory as taught by Tso wherein Tso teaches that it is advantageous to utilize a cache memory when needing to retrieve content for a user and have versions of content for later use without the need to re-retrieve content from a network source (Tso, col. 5, ll. 8-11).

11. Regarding claim 28, Tiemann teaches a method for providing a response to a request for information from a client computing system comprising receiving, at the server computing system, a request for information from the client computing system (col. 2, ll. 26-28), creating a page object having references to objects (col. 6, ll. 1-10; use of a template). Tiemann teaches the identification of data objects ("determining whether each object referenced by the page object corresponds to a user control; determining whether each user control supports output caching; determining whether the object referenced by the page object is cached if the object corresponds to a user control that supports output caching") and retrieving the output data of the object referenced by the page object and retrieving executable code for objects (col. 6, ll. 1-10, Tiemann teaches the identification of dynamic and static portions; col. 7, ll. 9-15, use of JavaScript) wherein certain objects are identified as cached objects (col. 6, ll. 6-10). Tiemann teaches further the inserting any retrieved output data and any created objects as components into a hierarchical tree data model at the server computing system (col. 6, ll. 1-37, use of template file and example template file), processing the components of the hierarchical tree data model at the server computing system to create a renderable

page object (col. 7, ll. 4-11, after portions of the template have been identified the HTML file is generated); and sending the renderable page object from the server computing system to the client computing system (col. 2, ll. 32-37). Tiemann teaches the use of a cache that is locally accessible by a user (col. 4, ll. 25-27) however does not teach of a cache that is located at the server. However, in related art, Tso teaches similarly to Tiemann the request by a client being sent to a server for information (col. 3, ll. 14-19) and Tso teaches further the utilization of retrieving content located at the server and storing and retrieving the content in and from a server-side cache memory (col. 4, line 65 – col. 5, line 11). One of ordinary skill in the art at the time of the applicants' invention would have recognized the use of a server side cache memory and therefore would have found it obvious in combination with Tiemann to utilize a cache memory as taught by Tso. One of ordinary skill in the art would have been motivated to utilize a server-side cache memory as taught by Tso wherein Tso teaches that it is advantageous to utilize a cache memory when needing to retrieve content for a user and have versions of content for later use without the need to re-retrieve content from a network source (Tso, col. 5, ll. 8-11).

12. Regarding claim 30, Tiemann and Tso teach the method wherein the contents of the renderable page comprises an HTML specification for a web page (Tiemann, col. 7, ll. 4-9).

13. Regarding claim 31, Tiemann and Tso teach the method further comprising arranging the page components into a data model to facilitate rendering the requested

web page based on the page components (Tiemann, col. 7, ll. 4-11, after portions of the template have been identified the HTML file is generated).

14. Regarding claim 32, Tiemann and Tso teach the method further comprising arranging the page components into the data model comprises arranging the page components into a hierarchical tree data model (Tiemann, col. 6, ll. 1-37, use of template file and example template file).

15. Regarding claim 33, Tiemann and Tso teach the method wherein generating the page component associated with each user control that supports output caching and is not available comprises:

retrieving the instructions that are associated with the page components from the respective separate file (Tso, col. 4, line 65 – col. 5, line 11); and

generating the page components based on the retrieved instructions (Tiemann, col. 7, ll. 4-11, after portions of the template have been identified the HTML file is generated).

16. Regarding claim 34, Tiemann and Tso teach the method further comprising: storing in the cache of the server computing device any generated page component that supports output caching and that is not available at the cache of the server computing device (Tso, col. 4, line 65 – col. 5, line 11).

17. Claims 19-22, 29, and 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tiemann and Tso in view of Schloss et al. (US 6,249,844 B1), hereinafter referred to as Schloss.

18. Regarding claim 19, Tiemann and Tso teach the utilization of a cache as outlined above but do not explicitly recite wherein the output caching directive includes a time duration during which the component object is permitted to reside in the output cache. However, in related art, Schloss teaches on this method wherein Schloss teaches the utilization of standard cache management policies including duration (6, ll. 46-51). One of ordinary skill in the art at the time of the applicant's invention would have found it obvious to utilize caching rules like the ones described by Schloss in combination with the invention as taught by Tiemann and Tso. One of ordinary skill in the art would have been motivated to utilize standard cache management policies as is known in the art to maximize the efficiency of the cache.

19. Regarding claim 20, Tiemann, Tso and Schloss teach the method wherein the output caching directive includes an attribute indicating a condition for varying the component object to be stored in the output cache (Schloss, col. 6, ll. 46-51).

20. Regarding claim 21, Tiemann, Tso and Schloss teach the method wherein the attribute indicates that the component object is to be stored in the output cache according to a type of browser used by the client computing system (Tso, col. 6, ll. 11-14).

21. Regarding claim 22, Tiemann, Tso and Schloss teach the method wherein the attribute indicates that the component object is to be stored in the output cache according to values of at least one parameter (Schloss, col. 6, ll. 46-51).

22. Regarding claim 29, Tiemann and Tso teach the utilization of a cache as outlined above but do not explicitly recite wherein the output caching directive includes a time

duration during which the component object is permitted to reside in the output cache. However, in related art, Schloss teaches on this method wherein Schloss teaches the utilization of standard cache management policies including duration (6, ll. 46-51). One of ordinary skill in the art at the time of the applicant's invention would have found it obvious to utilize caching rules like the ones described by Schloss in combination with the invention as taught by Tiemann and Tso. One of ordinary skill in the art would have been motivated to utilize standard cache management policies as is known in the art to maximize the efficiency of the cache.

23. Regarding claim 35, Tiemann, Tso and Schloss teach the method wherein the output caching directive includes an attribute indicating a condition for varying the component object to be stored in the output cache (Schloss, col. 6, ll. 46-51).

24. Regarding claim 36, Tiemann, Tso and Schloss teach the method wherein the attribute indicates that the component object is to be stored in the output cache according to a type of browser used by the client computing system (Tso, col. 6, ll. 11-14).

25. Regarding claim 37, Tiemann, Tso and Schloss teach the method wherein the attribute indicates that the component object is to be stored in the output cache according to values of at least one parameter (Schloss, col. 6, ll. 46-51).

26. Claims 23, 24, 26, 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tiemann, Tso and Schloss in view of Mattson (U.S. Patent Number 5,434,992), hereinafter referred to as Mattson.

27. Regarding claim 23, Tiemann, Tso and Schloss teach the need to increase data output performance, but are silent on the use of performance counters to monitor output-caching performance. However, Mattson teaches the use of counters to measure the performance of a cache (col. 9, line 56 – col. 10, line 2). One of ordinary skill in the art at the time of the applicant's invention would have recognized the advantage of using performance counters in order to improve the output of data (Schloss, col. 2, lines 27-30). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to combine the performance counters disclosed by Mattson with the data output method using data caching disclosed by Schloss.

28. Regarding claim 24, Tiemann, Tso and Schloss teach the need to increase data output performance, but are silent on the use of hit and miss counters to monitor output-caching performance. However, Mattson teaches the uses of hit and miss counters to measure the performance of a cache (col. 9, lines 56-64).

29. Regarding claim 26, Tiemann, Tso and Schloss teach the need to increase data output performance, but is silent on the use of calculating an output cache hit ratio to monitor output-caching performance. However, Mattson teaches the use of calculating hit ratios in order to measure the performance of a cache (col. 9, lines 56-64).

30. Regarding claim 38, Tiemann, Tso and Schloss teach the need to increase data output performance, but are silent on the use of performance counters to monitor output-caching performance. However, Mattson teaches the use of counters to measure the performance of a cache (col. 9, line 56 – col. 10, line 2). One of ordinary

skill in the art at the time of the applicant's invention would have recognized the advantage of using performance counters in order to improve the output of data (Schloss, col. 2, lines 27-30). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to combine the performance counters disclosed by Mattson with the data output method using data caching disclosed by Schloss.

31. Regarding claim 39, Tiemann, Tso and Schloss teach the need to increase data output performance, but are silent on the use of hit and miss counters to monitor output-caching performance. However, Mattson teaches the uses of hit and miss counters to measure the performance of a cache (col. 9, lines 56-64).

32. Claims 25 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tiemann, Tso and Schloss in view of Smith et al (U.S. Patent Number 5,802,600), hereinafter referred to as Smith.

33. Regarding claim 25, Tiemann, Tso and Schloss teach the need to increase data output performance, but are silent on counting the number of additions and removals to the output cache. However, Smith taught gathering statistics based on directory entries to measure output-caching performance (col. 5, lines 8-54). One of ordinary skill in the art at the time of the applicant's invention would have recognized the advantage of using performance counters in order to improve the output of data (Schloss, col. 2, lines 27-30). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to combine the statistics gathering

method disclosed by Smith with the data output method using data caching disclosed by Schloss.

34. Regarding claim 40, Tiemann, Tso and Schloss teach the need to increase data output performance, but are silent on counting the number of additions and removals to the output cache. However, Smith taught gathering statistics based on directory entries to measure output-caching performance (col. 5, lines 8-54). One of ordinary skill in the art at the time of the applicant's invention would have recognized the advantage of using performance counters in order to improve the output of data (Schloss, col. 2, lines 27-30). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to combine the statistics gathering method disclosed by Smith with the data output method using data caching disclosed by Schloss.

Response to Arguments

35. Applicant's arguments filed 30 December 2007 have been fully considered but they are not persuasive. Applicant argues with respect to independent claim 14 that Tiemann and Tso do not disclose or suggest "inserting retrieved component objects that represent user controls of the page file into a hierarchical tree data model at the first computing system." The examiner respectfully disagrees. The interpretation of a "user control" is given its broadest reasonable interpretation in light of the specification of the applicant. A "user control" is being interpreted any type of data object which controls or manipulates how data is displayed to a user on for example a web page which is viewed using a web browser using for example appropriate tags (i.e. HTML tags). Tiemann is

not relied upon for teaching or suggesting the insertion steps being performed at the first computing system. By way of combination, Tso teaches on this aspect of the claims wherein Tso teaches in column 4, line 65 through column 5, line 11 the utilization of retrieving content located at the server and storing and retrieving the content in and from a server-side cache memory. Tso is therefore explicitly suggesting of having processing steps being performed on the first computing system's side (or server side). Therefore, claim 14 is not found patentable over the cited prior art of record. Applicant's remaining arguments with respect to the remaining independent claims are essentially the same as set forth with respect to independent claim 14 and therefore are not found persuasive for the same reasons as set forth above. Therefore, the claims as filed are not found patentable over the prior art of record and the rejections set forth above have been maintained.

Conclusion

36. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

37. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Peiffer et al. (US 7,249,196) teaches a web page source file transfer system and method.

Zimowski (US 7,343,412) teaches a method for maintaining and managing dynamic web pages stored in a system cache and referenced objected cached in other data stores.

Dinovo (US 7,320,028) teaches a dynamic content delivery to static page in non-application capable environment.

Pardikar et al. (US 2008/0028149 A1) teaches a method and system for client-side caching.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin A. Ailes whose telephone number is (571)272-3899. The examiner can normally be reached on M-F 6:30-4, IFP Work Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571)272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

baa

/Andrew Caldwell/
Supervisory Patent Examiner, Art Unit 2142